

Amendment and Response

Applicant: Jason D. Hanzlik et al.

Serial No.: 10/730,698

Filed: December 8, 2003

Docket No.: 10395US01

Title: TAPE REEL ASSEMBLY WITH WEAR RESISTANT DRIVEN TEETH

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REMARKS

The following remarks are made in response to the Non-Final Office Action mailed July 11, 2006. In that Office Action, claims 1, 2, and 5-9 were rejected under 35 U.S.C. § 112, second paragraph. In addition, claims 1, 5, 6, 10, 14, 15, 17, 23, 25, and 26 were rejected under 35 U.S.C. § 102(b) as anticipated by Morita et al., U.S. Patent Publication No. 2002/0158161 ("Morita"), and claims 2, 7-9, 11, 16, 18, and 24 were rejected under 35 U.S.C. § 103(a) as unpatentable over Morita, and further in view of Boutni, U.S. Patent No. 4,749,738 ("Boutni").

With this Response, claim 1 has been amended and claims 27-29 are newly presented. Claims 1-2, 5-11, 14-18, and 23-29 remain pending in the application and are presented for consideration and allowance.

Claim Rejections under 35 U.S.C. § 112

Claims 1, 2, and 5-9 were rejected under 35 U.S.C. § 112, second paragraph.

Under 35 U.S.C. § 112, second paragraph, the claims must particularly point out and distinctly claim the subject matter that the applicant regards as the invention. In order to meet this standard, a claim must satisfy two requirements: (1) it must set forth what the applicant regards as his invention and (2) the claims must particularly point out and distinctly define the metes and bounds of the subject matter claimed. *See, e.g., Solomon v. Kimberley-Clarke Corp.*, 55 USPQ2d 1279, 1282 (Fed. Cir. 2000); MPEP § 2171.

In evaluating the first requirement, the MPEP advises that "a rejection based on the failure to satisfy this requirement is appropriate only where applicant has stated, somewhere other than in the application as filed, that the invention is something different than what is defined by the claims." MPEP § 2172(I) (emphasis added). Otherwise, "the invention set forth in the claims must be presumed, in the absence of evidence to the contrary, to be that which applicants regard as their invention." MPEP § 2172(I) (citing *In re Moore*, 439 F.2d 1232, 169 USPQ 236 (CCPA 1971)). Since the applicants have not stated in any manner that the invention is something different than what is defined by the claims, and since the Examiner has taken the

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position that the language of claim 1 is unclear or inaccurate, it is believed that claims 1, 2, and 5-9 meet the first requirement of 35 U.S.C. § 112, second paragraph.

In terms of the second requirement, an "[a]pplicant may use functional language ... or any style of expression or format of claim which makes clear the boundaries of the subject matter for which protection is sought." MPEP § 2173.01 (emphasis added) (citing *In re Swinehart*, 439 F.2d 210, 160 USPQ 226 (CCPA 1971)). The clarity of the claim language must be evaluated according to the understanding of one having ordinary skill in the art in view of the application disclosure and the prior art. *In re Moore*, 439 F.2d 232, 235, 169 USPQ 236, 238 (CCPA 1971).

The MPEP notes that Examiners are encouraged to suggest claim language that will improve the clarity or the precision of the language use, but should not reject claims or insist on their own preferences if other modes of expression selected by the applicant(s) satisfy the statutory requirements. MPEP § 2173.02.

With this Response, the language of independent claim 1 has been clarified to address the Examiner's comment at page 2 of the Office Action. Although the Examiner's position is that it is not clear whether the teeth are extensions of the tape winding surface, the Examiner has not suggested alternative language that might improve the clarity or the precision of claim 1. In any regard, applicants believe that the amendment to independent claim 1 makes clear the boundaries of the subject matter for which protection is sought and satisfies 35 U.S.C. § 112, second paragraph.

In particular, amended independent claim 1 recites a hub portion including a hub defining a tape winding surface that includes a first end and an opposing second end, and driven teeth integrally formed by the hub, the driven teeth extending relative to one of the opposing ends of the tape winding surface and defining an engagement surface. It is believed that the amended language would be clear to one having ordinary skill in the art in light of the disclosure in the specification at page 10, line 23 to page 11, line 8, and FIGS. 5-6.

Based upon the above, it is respectfully requested that the rejections to claims 1, 2, and 5-9 under 35 U.S.C. § 112, second paragraph, be withdrawn.

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Claim Rejections under 35 U.S.C. § 102(b)

Claims 1, 5, 6, 10, 14, 15, 17, 23, 25, and 26 were rejected under 35 U.S.C. § 102(b) as anticipated by Morita.

The Examiner takes the position in the Office Action mailed July 11, 2006 at page 3 that Morita discloses a hub (4, 6, or 21) that defines a tape winding surface, and teeth (gear teeth 42 or teeth 63) formed from a polymer including a lubricating additive. The Examiner asserts that the teeth are integrally formed with the hub as shown by the hub portion 4 (in, for example, FIG. 2). Applicants respectfully disagree.

Each of the pending claims requires a hub that defines a tape winding surface and includes driven teeth **integrally** formed by the hub. Neither the restraining member 4 (having teeth 42) nor the releasing member 6 (having teeth 63) is a hub that defines a tape winding surface. The restraining member 4 and the releasing member 6 combine to form a reel-rotation restraining means 10 (See Morita at FIG. 2). The hub 21 in Morita is separate and distinct from the restraining member 4 and the releasing member 6 (See Morita at FIG. 3). In particular, it is the hub 21 about which the magnetic tape is wound (Morita at paragraph 0108). FIG. 2 of Morita is an exploded perspective view of "the essential parts" showing the restraining member 4, the releasing member 6, and the reel gear 24 are each provided as separate components apart from the hub 21 (Morita at paragraph 0108).

Based upon the disclosure of paragraphs 0120-0121 in Morita ("The operation of the reel-rotation restraining means 10 . . ."), one of ordinary skill in the art would recognize that the restraining member 4 and the releasing member 6 are components of a brake-like assembly that are useful in restraining the rotation of the hub 21 when the cartridge 1 is in a stored position (see Morita at paragraph 0107). In particular, Morita discloses in paragraph 0121 that a drive 11 chucks up with and displaces the reel gear 24 upward, which displaces the pushing-up portion 63 of the releasing member, which pushes up and displaces the restraining member 4 and the releasing member 6 to enable rotation of the hub 21. The restraining member 4, the releasing member 6, and the reel 2 are components of a brake assembly that are analogous to the brake

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assembly described at page 5 of the instant specification. In this regard, the known brake assemblies include some form of a brake body (such as the restraining member 4) and some form of a biasing component (such as releasing member 6). It is respectfully asserted that one of ordinary skill in the tape reel assembly art would understand that a brake assembly (such as is provided by the restraining member 4 and the releasing member 6) is separate and distinct from a hub, and it is the hub 21 of Morita that forms the tape winding surface.

The Examiner takes the position that Morita discloses a hub (4, 6, or 21) that defines a tape winding surface. However, neither the restraining member 4 nor the releasing member 6 defines a tape winding surface. Only the hub 21 is provided with a tape winding surface (stated expressly in Morita at paragraph 0108). Morita's hub 21 fails to teach or suggest a hub defining a tape winding surface and driven teeth integrally formed by the hub, as required by independent claims 1, 10, and 17. For this reason alone, it is respectfully submitted that claims 1, 5, 6, 10, 14, 15, 17, 23, 25, and 26 recite patentable subject matter over Morita.

The Examiner takes the position at page 3 that the teeth (restraining gear 42) of hub portion 4 are seen to be driven teeth since they are driven upwardly when drive means 11 engages the tape reel assembly. However, the restraining member 4 does not define a tape winding surface. Each of the independent claims requires a hub defining a tape winding surface and driven teeth integrally formed by the hub. Thus, although the restraining gear 42 teeth are integrally formed on the restraining member 4, the teeth 42 are not integrally formed by a hub that defines a tape winding surface, as required by each of the independent claims. To this end, the Examiner's interpretation of "driven teeth" in Morita fails to account for other limitations of the pending independent claims.

The Examiner takes the position on page 5 that even if the pending independent claims define over Morita, that it would be obvious to form the reel gear 24 teeth of the same material as the restraining member 4 and the releasing member 6 to provide wear resistance for the reel gear 24 teeth. Applicants respectfully disagree.

First, the reel gear 24 teeth are not integrally formed by a hub that defines a tape winding surface, as required by the pending claims. Thus, even if the reel gear 24 teeth were to be made

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of the same material as the restraining member 4 and the releasing member 6 as asserted by the Examiner, the resulting device would still fail to teach or suggest the claimed hub of the instant invention.

In addition, Morita discloses in paragraph 0119 that at least one of the restraining member 4 or the releasing member 6 includes a synthetic resin containing a lubricant. Morita asserts "this reduces the friction and wear between the sliding-contact portions of both." Thus, it is reasonable to conclude that Morita provides a synthetic resin containing lubricant in one of the restraining member 4 or the releasing member 6 to reduce the friction as these two components slide relative one to the other. In other words, it is the sliding wear or the sliding friction that Morita is motivated to reduce.

In contrast, Morita discloses at paragraph 0121 that the reel gear 24 chucks-up with the drive-side rotation drive means 11. The drive means 11 rotatably engages with the reel gear 24. Since the reel gear 24 teeth are not "sliding-contact portions," one of skill in the art would have no motivation to make the suggested combination. That is to say, there is no suggestion or motivation to provide the rotatable reel gear 24 with the resin containing lubricant since Morita teaches that the lubricant is provided to reduce sliding friction, and the reel gear 24 teeth are not sliding-contact portions. For at least this reason, the Examiner's alternative argument fails to establish a *prima facie* case of obviousness over Morita.

Claim Rejections under 35 U.S.C. § 103(a)

Claims 2, 7-9, 11, 16, 18, and 24 were rejected under 35 U.S.C. § 103(a) as unpatentable over Morita in view of Boutni.

To establish a *prima facie* case of obviousness, each of the three following basic criteria must be met. First, there must be some suggestion or motivation to modify or combine the reference teachings. Second, there must exist a reasonable expectation of success. Third, the references must teach or suggest all of the claim limitations. MPEP § 2143.

The hub 21 disclosed in Morita does not include integrally formed driven teeth. In contrast, the brake components, i.e., the reel 2, the restraining member 4, and the releasing

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member 6, which are provided separately and independently from the hub 21, include teeth 24, 42, and 63, respectively. Morita is silent as regards material selection for the hub 21.

Boutni likewise fails to teach or suggest driven teeth integrally formed by a hub, and thus does not cure the deficiencies of the Morita disclosure.

Thus, the purported combination fails to teach or suggest all of the limitations of a hub integrally forming driven teeth at an opposing end of a tape winding surface, where the driven teeth define an engagement surface formed from a polymer including a lubricating additive, as required by amended independent claims 1, 10, and 17. Consequently, a *prima facie* case of obviousness cannot be established.

Applicants respectfully submit that there is no suggestion or motivation available in the cited references to modify any of the teeth disclosed in Morita (none of which are integrally formed by the hub 21) to include the additives taught by Boutni. In this regard, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not in Applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991); MPEP § 2143. Since Morita is silent as to the resin selection for the hub 21, there is no basis upon which to form a motivation to select materials for Morita, much less the specific materials taught in Boutni.

Moreover, even if the purported combination is made, the resulting device would merely provide the reel-rotation restraining means 10 of Morita (elements 4 and 6) with the polymer compositions taught by Boutni. That is to say, the brake assembly components would be modified and not the hub 21. Thus, the purported combination would fail to provide a hub integrally forming driven teeth, where the driven teeth define an engagement surface formed from a polymer including a lubricating additive, as required by amended independent claims 1, 10, and 17.

Based upon the above, it is respectfully requested that the rejections to claims 2, 7-9, 11, 16, 18, and 24 under 35 U.S.C. § 103(a) as unpatentable over Morita in view of Boutni be withdrawn.

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New Claims

With this Response, claims 27-29 are newly presented. No new matter has been added.

Claim 27 depends from independent claim 1 and requires a tape winding surface to be integrally formed by the hub. The Examiner asserts that the restraining member 4 and the releasing member 6 of Morita can be interpreted as hub portions. However, neither of the members 4, 6 is a hub that integrally forms a tape winding surface.

Claims 28 and 29 are newly presented to particularly point out and distinctly claim subject matter related to FIGS. 5 and 6 as supported by the disclosure in the specification at least at pages 10 and 11. It is respectfully submitted that newly presented claims 28 and 29 further define patentably distinct amended independent claim 1.

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CONCLUSION

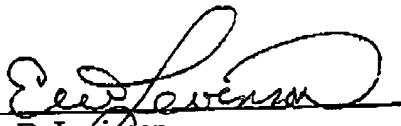
Applicants respectfully submit that pending claims 1-2, 5-11, 14-18, and 23-29 recite patentable subject matter, are in form for allowance, and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 1-2, 5-11, 14-18, and 23-29 is respectfully requested.

Although three claims have been added, no fees are required under 37 C.F.R. § 1.16(i) for these additional claims. However, if other fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 09-0069.

The Examiner is invited to telephone the Applicants' representative at the below-listed number to facilitate prosecution of this application.

Respectfully submitted,

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